

APPENDIX C

GLOSSARY *

***All of these terms do not appear in the text of this pamphlet but are provided as a reference for the RE to illustrate terms commonly used in HTRW work.**

Administrative Order - A legal document signed by EPA directing an individual, business, or other entity to take corrective action or refrain from an activity. It describes the violations and actions to be taken, and can be enforced in court.

Administrative Order of Consent - A legal and enforceable agreement signed between EPA and private potentially responsible parties for site contamination, whereby the responsible parties agree to perform or pay the cost of site cleanup. The agreement describes actions to be taken at a site and may be subject to a public comment period. Unlike a consent decree, an administrative order does not have to be approved by a judge. An administrative order can be required for both CERCLA and RCRA sites.

Administrative Record - A compilation of documents that records the decision-making process regarding the selection of a response action to be taken at a site.

Air Stripping - A treatment system that removes, or "strips" volatile organic compounds from contaminated ground water or surface water for forcing an air stream through the water and causing the compounds to evaporate.

Applicable or Relevant and Appropriate Requirement (ARAR) - Requirements that are legally applicable or relevant and appropriate under site-specific circumstances. ARARs may include, but are not limited to, cleanup standards, standards of control, and other environmental protection requirements, criteria, or limitations. ARARs may also be Federal, state, or local in origin.

Aquifer - A water bearing geologic formation composed of soil or rock that can supply groundwater to wells and springs.

Baseline Risk Assessment - An evaluation of the potential threat to human health and the environment in the absence of any remedial action at a site.

Byproduct Material - Means "any radioactive material, except special nuclear material, yielded in or made radioactive by exposure to the radiation incident to the process of producing or utilizing special nuclear material". [H&S Code, Chapter 7.6, Section 25805 (d)].

Carcinogen - A substance that causes cancer.

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Carbon Adsorption - A treatment system where contaminants are removed from groundwater, surface water, or air when the water/air is forced through tanks containing activated carbon, a specially treated material that attracts the contaminants.

Categorical Exclusion - A category of actions which do not individually or cumulatively have a significant effect on the human environment and for which neither an environmental assessment or an environmental impact statement is required.

Chemical Data Acquisition Plan - A written plan, utilized for all contract and in-house HTRW projects, which describes all details regarding sampling and analysis for chemical parameters. It is prepared in accordance with ER 1110-1-263 and is functionally equivalent to the EPA's Quality Assurance Project Plan (QAPP).

Chemical Warfare Material(CWM) - This refers to items configured as a munition containing a chemical substance that is intended to kill, seriously injure, or incapacitate a person through its physiological effects. It also includes V- and G- series nerve agent, H- series blister agent and lewisite in other-than-munition configurations. Due to their hazards, prevalence, and military-unique application, chemical agent identification sets (CAIS) are also considered CWM. CWM does not include: riot control agents, chemical herbicides, smoke and flame producing agents, or soil, water, debris or other media contaminated with chemical agent.

Cleanup - Actions taken to deal with a release or threatened release of hazardous substances that could affect public health and/or the environment. The term "cleanup" is often used broadly to describe various response actions or phases of remedial responses such as the remedial investigation/feasibility study.

Clean Air Act (CAA) - The Clean Air Act was enacted in 1970 to protect and enhance the quality of the nation's air resources in order to protect and maintain the public health and welfare. Through the Clean Air Act, National Ambient Air Quality Standards (NAAQS) were established for six criteria pollutants: carbon monoxide, sulfur dioxide, nitrogen dioxide, ozone, particulates and lead. Monitoring data for these pollutants are used to measure the air quality around the country. In areas that meet the NAAQSs, "Prevention of Significant Deterioration" programs are required to maintain air quality standards. In non-attainment areas, programs are required to reduce air pollutants to meet NAAQSs. To control air emissions, notification and permitting programs have been instituted which evaluate and monitor air pollution activities. In addition to establishing NAAQSs, the CAA also regulates toxic air pollutants. There are specific regulations on a limited number of toxics such as asbestos, mercury, and vinyl chloride. However, under the new CAA of 1990, regulations for an extensive list of toxic chemicals are to be developed.

Clean Water Act (CWA) - The Clean Water Act was enacted in 1972 as a means to restore and maintain the chemical, physical, and biological integrity of the nations' waters. This is primarily

accomplished through the National Pollutant Discharge Elimination System (NPDES) Program and the Section 404 Permit Program.

Closure (as stated in RCRA) - The process in which the owner/operator of a hazardous waste management facility discontinues active operation by treating, removing from the site, or disposing of onsite, all hazardous wastes in accordance with an approved closure plan. Closure entails specific financial guarantees and technical tasks that are included in a closure plan and which must be implemented. Under RCRA, the facility must be closed in a way that (1) minimizes the need for further facility maintenance; and (2) controls, minimizes, or eliminates post-closure escapes of hazardous waste, its Constituents, or byproducts to groundwater or surface water or to the atmosphere.

Closure Plan - A written plan, subject to approval by authorized regulatory agencies, which the owner/operator of a hazardous waste management facility must submit with the RCRA permit application or for interim status closure. The approved plan becomes part of the permit conditions subsequently imposed on the applicant. The plan identifies steps required to (1) completely or partially close the facility at any point during its intended operating life, and (2) completely close the facility at the end of its intended operating life.

Combined Waste - Waste that is not mixed waste and contains both (1) radioactive material and (2) hazardous waste.

Comment Period - A time period during which the public can review and comment on various documents and EPA actions. For examples, a comment period is provided when EPA proposes to add sites to the National Priorities List. Also, a minimum 3-week comment period is held to allow community members to review and comment on a draft feasibility study.

Community Relations - EPA and/or DOD program to inform and involve the public in the site remediation process and respond to community concerns.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or Superfund) - A Federal law passed in 1980 and amended in 1986 by the Superfund Amendments and Reauthorization Act (SARA). The law created a special tax that goes into a Trust Fund, commonly known as Superfund, to investigate and clean up abandoned or uncontrolled hazardous waste sites. Under the program, EPA can either:

- Pay for site cleanup when parties responsible for the contamination cannot be located or are unwilling or unable to perform the work.
- Take legal action to force parties responsible for site contamination to cleanup the site or pay back the Federal government for the cost of cleanup.

Consent Decree - A legal document, approved and issued by a judge, that formalized an agreement reached between EPA and potentially responsible parties (PRPs) where PRPs will perform all or part of a Superfund site cleanup. The consent decree describes actions that PRPs are required to perform and is subject to a public comment period.

Containerized HTW (CON/HTW) - HTW which is contained within an underground storage tank, aboveground storage tank, transformer, hydraulic system, etc. If a release is discovered, the project category becomes HTW rather than containerized HTW.

Contract Lab Program - Laboratories under contract to EPA which analyze soil, water, and waste samples taken from areas at or near Superfund sites.

Contracting Officer - An individual with the authority to enter into, administer, and/or terminate contracts and make related determinations and findings.

Contracting Officer's Representative (COR) - An individual trained to prepare procurement requests and to monitor contractor performance. The COR is not authorized to sign contracts or to make changes and modifications to a contract.

Corrective Action Management Unit (CAMU) - A contiguous area within a facility (as designated by EPA) for the purpose of implementing RCRA Corrective Action, and which may contain discrete, engineered land-based sub-units.

Corrective Measures Implementation - Phase IV of the RCRA Corrective Action Process. Involves designing, constructing, operating, maintaining, and monitoring selected corrective measures.

Corrective Measures Study - Phase III of the RCRA Corrective Action Process. Required if the need for corrective measures is identified during the RFI phase and involves identifying, investigating, and selecting measures to clean up contamination.

Cost-Effective Alternative - The cleanup alternative selected for a site on the National Priorities List based on technical feasibility, permanence, reliability, and cost. The selected alternative does not require EPA to choose the least expensive alternative. It requires that if there are several cleanup alternatives available that deal effectively with the problems at a site, EPA must choose the remedy on the basis of permanence, reliability, and cost.

Cost Recovery - A legal process where potentially responsible parties can be required to pay back the Federal government for money it spends on any cleanup actions.

Data Quality Objectives - Quantitative and qualitative statements that specify the data needed to

support decisions regarding remedial response activities.

Decision Document - Documentation of response action decisions for all actions at non-NPL sites and for interim response actions at NPL sites.

Defense Environmental Restoration Account (DERA) - A transfer account, established by the defense Appropriation Act of 1984, that funds the Installation Restoration Program for active installations and the Formerly Used Defense Sites Program for formerly owned or used installations. The account also funds the other goals of the Defense Environmental Restoration Program.

Defense Environmental Restoration Program (DERP) - Provide centralized program management for the cleanup of DOD hazardous waste sites consistent with the provisions of CERCLA. The goals of the program are: (1) the identification, investigation, research and development and cleanup of contamination from hazardous substances, pollutants, and contaminants, (2) correction of other environmental damage which creates an imminent and substantial endangerment to the public health, welfare, or to the environment and (3) demolition and removal of unsafe buildings and structures.

Delisting - The exclusion (or petitioning for exclusion) of a solid waste from the definition of "hazardous waste" even though that waste is listed as hazardous under RCRA. To have a waste delisted, the owner/operator of a facility must petition for a regulatory amendment. The amendment would exclude only the waste generated at the specific facility for which the applicant provides demonstrations (sampling, testing, and other procedures subject to strict requirements under RCRA). To be successful in having a waste delisted, the applicant must satisfy EPA and/or state authorities that the waste does not meet any of the criteria under which the waste was listed as "hazardous" or have other harmful constituents.

Endangered Species Act (ESA) - The Endangered Species Act serves to protect species threatened with extinction.

Endangerment Assessment - A study conducted as a supplement to a remedial investigation to determine the nature and extent of contamination at a Superfund site and the risks posed to public health and/or the environment. EPA or State agencies conduct the study when legal action is pending to require potentially responsible parties to perform or pay for the site cleanup.

Enforcement - EPA's efforts, through legal action if necessary, to force potentially responsible parties to perform or pay for a Superfund site cleanup.

Enforcement Decision Document - A public document that explains EPA's selection of a cleanup alternative at a Superfund site through an EPA enforcement action. Similar to a Record of Decision.

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Environmental Response Team - EPA hazardous waste experts who provide 24-hour technical assistance to EPA Regional Offices and States during all types of emergencies involving releases at hazardous waste sites and spills of hazardous substances.

Environmental Assessment - A concise public document for which a Federal agency is responsible that serves to provide evidence for determining whether to prepare an environmental impact statement of a finding of no significant impact.

Environmental Impact Statement - A public document with a primary purpose of ensuring that NEPA policies and goals are incorporated early into the programs and actions of Federal agencies.

Facility (as stated under CERCLA) - (1) Any building, structure, installation, equipment, pipe or pipeline (including any pipe into a sewer or publicly owned treatment works), well, pit, pond, lagoon, impoundment, ditch, landfill, storage container, motor vehicle, rolling stock, or aircraft; or (2) any site or area where a hazardous substance has been deposited, stored, disposed of or placed, or has otherwise come to be located.

Feasibility Study (FS) - A study undertaken to develop and evaluate alternatives for remedial action.

Federal Agency Hazardous Waste Compliance Docket - A list, maintained by EPA of Federal hazardous waste treatment, storage, disposal, and spill sites. The Docket include information submitted by Army installations under Sections 3005, 3010, and 3016 of the Solid Waste Disposal Act and Sections 103 and 120 of CERCLA.

Federal Facilities Compliance Act (FFCA) - The Federal Facilities Compliance Act of 1992 amended the Solid Waste Disposal Act to clarify provisions concerning the application of certain requirements and sanctions to Federal Facilities. Important aspects of this Act are:

- The United States has waived sovereign immunity with respect to certain substantive or procedural requirements of the Solid Waste Disposal Act.
- Federal facilities are now subject to administrative orders, civil and administrative penalties and fines.
- No Federal employee, or officer of the U.S. shall be personally liable for any civil penalty under any Federal, State, interstate, or local solid or hazardous waste law with respect to any act or omission within the scope of the official duties of the agent, employee or officer.

- The Act does not provide Federal employee protection for criminal penalties or fines.
- Federal facilities are subject to reasonable service charges for fees assessed in connection with the processing and issuance of permits, renewal of permits, amendments to permits, review of plans, studies, and other documents, and inspection and monitoring of facilities, as well as any other nondiscriminatory charges that are assessed in connection with a Federal, state, interstate, or local solid waste or hazardous waste regulatory program.

Finding of No Significant Impact - A document prepared by a Federal agency presenting reasons why an action will not have a significant effect on the human environment and for which an environmental impact statement will not be prepared.

First Line Review - A detailed review of a deliverable by all technical disciplines at one level up from the production of the deliverable. For the HTRW CX, all appropriate technical disciplines will provide a review, with or without comments.

Formal Project Management - Project management in accordance with ER 5-1-11.

FUDS Project - For the purposes of "project management", a FUDS project is defined as all activities at an eligible site necessary to cleanup the site in accordance with all applicable environmental laws, regulations, and policies.

Generator (as stated in RCRA) - Any person, by site, whose process produces a hazardous waste or whose actions first cause a hazardous waste to become subject to regulation.

Groundwater - Water found beneath the earth's surface and located in voids between soil and rock.

Hazardous Material - A Department of Transportation term used to describe materials regulated under the Hazardous Materials Transportation Act (HMTA). Materials designated as hazardous for the purpose of transportation are listed in 49 CFR 172. This list of hazardous materials includes hazardous substances, hazardous wastes, and petroleum products.

Hazardous and Solid Waste Amendments (HSWA) - Modifications to RCRA that were enacted on November 8, 1984.

Hazardous Chemical [as defined in CERCLA Title III, Section 311(e)] - Any chemical that is a physical hazard or a health hazard, except:

- Any food, food additive, color additive, drug, or cosmetic regulated by the Food and Drug

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Administration;

- Any substance present as a solid in any manufactured item to the extent exposure to the substance does not occur under normal conditions of use;
- Any substance to the extent it is used for personal, family, or household purposes, or is present in the same form and concentration as a product packaged for distribution and use by the general public;
- Any substance to the extent it is used in a research laboratory or a hospital or other medical facility under the direct supervision of a technically qualified individual; and
- Any substance to the extent it is used in routine agricultural operations or as a fertilizer held for sale by a retailer to the ultimate customer.

Hazardous Constituent (as defined in RCRA, Appendix VIII to 40 CFR 261 or Appendix IX of 40 CFR 264) - chemicals which have been shown in reputable scientific studies to have toxic, carcinogenic, mutagenic or teratogenic effects on humans or other life forms.

Hazard Ranking System - A scoring system used to evaluate potential relative risks to public health and the environment from releases or threatened releases of hazardous substances. EPA and States use the HRS to calculate a site score, from 0 to 100, based on the actual or potential release of hazardous substances from a site through air, surface water, or groundwater to affect people. This score is the primary factor used to decide if a hazardous waste site should be placed on the National Priorities List.

Hazardous Substance (as stated in CERCLA) - Any substance designated pursuant to Section 311(b) (2) (A) of the Clean Water Act; any element, compound, mixture, solution or substance designated pursuant to Section 102 of CERCLA@ any hazardous wastes having the characteristics identified under or listed pursuant to Section 3001 of the Solid Waste Disposal Act (but not including any waste the regulation of which under the Solid Waste Disposal Act has been suspended by Act of Congress) ; any toxic pollutant listed under Section 307 (a) of the Clean Water Act; any hazardous air pollutant listed under Section 112 of the Clean Air Act and any imminently hazardous chemical substance or mixture with respect to which the EPA Administrator has taken action pursuant to Section 7 of the Toxic Substances Control Act. The definition specifically excludes petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance in the first sentence of this paragraph, and the term does not include natural gas, natural gas liquids, liquefied natural gas of synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas). The list of hazardous substances is found in 40 CFR 302.

Hazardous Waste

a. General Definition - in general, the term "hazardous waste" is used to cover all hazardous wastes and toxic chemicals. However, "hazardous waste" has a specific meaning under RCRA. Alternately, CERCLA governs "hazardous substances, pollutants, and contaminants" which includes more than just RCRA "hazardous waste".

b. RCRA Definition (as defined in Title 40 CFR 261) - hazardous waste is a waste material that is:

(1) "listed" on one of the four predetermined hazardous waste lists; the (F, K, P, or U lists)

F - Specific Source Waste

K - Non-specific Source Waste

P - Acutely toxic wastes from discarded commercial chemical products, off specification species, container residues, and spill residues.

U - Toxic wastes from discarded commercial chemical products, off-specification species, container residues, and spill residues.

or

(2) one that possesses one of four hazardous characteristics:

(a) ignitability

(b) corrosivity

(c) reactivity

(d) toxicity

Health Assessment - An assessment of existing risk to human health posed by NPL Sites, prepared by the Agency for Toxic Substances and Disease Registry.

Hazardous, Toxic and Radioactive Waste (HTRW) - A USACE idiom referring to substances which because of their properties, occurrence, concentration, or regulatory status, may potentially pose a threat to human health and welfare, or the environment. This includes, but is not limited to, PCBs regulated by TSCA, radioactive wastes, and materials - defined as hazardous waste,

hazardous substances, and pollutants by Federal regulation. Refer to ER 1165-2-132 for Civil Works limitations on this definition.

High Level Radioactive Waste - Means "(1) irradiated reactor fuel, (2) liquid waste resulting from the operation of the first cycle solvent extraction system, or equivalent, and the concentrated wastes from subsequent extraction cycles, or equivalent, in a facility for processing irradiated reactor fuel, and (3) solids into which such liquid wastes have been converted". [H&S Code, Chapter 7.6, Art.2, Section 25805 (1)].

HTRW Program - Activities managed by USACE involving the cleanup of HTRW and OEW sites, UST removals, implementation of the ECAS program, and other related activities.

Hydrology - The science dealing with the properties, movement, and effects of water on the earth's surface, in the soil and rocks below, and in the atmosphere.

Incineration - Burning of certain types of solid, liquified, or gaseous materials under controlled conditions to destroy hazardous waste.

Information Repository - A file containing current information, technical reports, and reference documents regarding a Superfund site. The information repository is usually located in a public building that is convenient for local residents - such as a public school, city hall, or library.

In-House Project - A project or portions of a project that are planned and executed by in-house technical staff at the HTRW design district.

Innovative Technology - Technology for which the design criteria are still under development and for which there are few full-scale demonstrations. In functional terms, innovative technologies are defined "as those treatment technologies for source control other than incineration and solidification/stabilization and pumping with conventional treatment for groundwater." Consideration of innovative and alternatives technology was mandated by SARA.

Interim Status (as stated in RCRA) - The period during which the owner/operator of an existing TSD facility is treated as having been issued a RCRA permit even though he/she has not yet received a final determination. Owner/operator of new facilities cannot by definition qualify for interim status. An existing facility may automatically qualify for interim status if the owner/operator files both timely "notification" and the first part (Part A) of the RCRA permit application. Interim status continues until the permit is issued. Interim status should not be confused with interim authorization that relates to state programs, not to permit applicants.

IRP Project - For the purposes of "project management", an IRP project consists of all remedial activities executed by USACE on an installation. Remedial activities may occur on one or more

operable units, contiguous areas, or a group of contaminated areas defined on a workplan.

Leachate - A contaminated liquid resulting when water percolates, or trickles, through waste materials and collects components of those wastes. Leaching may occur at landfills and may result in hazardous substances entering soil, surface water, or ground water.

Lead Quality Assurance (QA) Laboratory - A laboratory capable to provide QA analytical support for all needed analytical methods in all required matrices. Able to provide QA support for analytical work being performed in-house by other division laboratories. Develop procedures and protocols for adoption by other division laboratories.

Low-Level Radioactive Waste - Means "any radioactive waste except high-level radioactive waste and transuranic wastes". [H&S Code, Chapter 7.6, Art. 2, Section 25805 (1)].

Management - The act of directing or supervising the activities of others to accomplish a mission.

Mandatory Review - First or second line review of "key" deliverable documents as delineated in appendices D, E, F, and G. All mandatory reviews are concurrent or within established project schedules. The CX will provide disposition of review and comments in the form of official correspondence to the district for this type of review.

Manifest (as stated in RCRA) - Shipping document EPA form 8700-22 and, if necessary, EPA form 8700-22A, originated and signed by the generator in accordance with the instructions included in the Appendix to 40 CFR 262.

Matrix Management - Utilizing USACE corporate resources for execution support (i.e., assets of HTRW CX, design districts," divisions, etc.).

Mixed Waste - Means "waste that contains both hazardous waste and source, special nuclear, or byproduct material subject to the Atomic Energy Act of 1954". [Federal Facility/Compliance Act, Section 3021 (b)(41)]

Monitor (review function) - Deliverables are provided for information. No time critical mandatory review is required.

Monitoring Wells - Special wells drilled at specific locations on or off a hazardous waste site where groundwater can be sampled at selected depths and studied to determine such things as the direction in which groundwater flows and the types and amounts of contaminants present.

National Environmental Policy Act (NEPA) - The National Environmental Policy Act was established in 1969 to ensure Federal activities safeguard against environmental degradation.

Federal agencies are required to include NEPA in their planning process.

National Priorities List - EPA's list of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term remedial response using money from the Trust Fund. The list is based primarily on the score a site receives on the Hazard Ranking System (HRS). EPA is required to update the NPL at least once a year.

National Oil and Hazardous Substance Contingency Plan [National Contingency Plan (NCP)] - A plan that provides for efficient, coordinated and effective response to discharges of oil and releases of hazardous substances, pollutants and contaminants in accordance with CERCLA and the Clean Water Act. Its full title is the "National Oil and Hazardous Substance Pollution Control Plan" and is found at 40CFR 300.

National Response Center (NRC) - The Federal operations center that receives notification of all releases of oil and hazardous substances into the environment. The Center is operated by the U.S. Coast Guard, which evaluates all reports and notifies the appropriate agency. The NRC can be contacted 24 hours a day, toll-free at (800) 424-8802.

National Response Team (NRT) - Representatives of 13 Federal agencies who, as a team, coordinate federal response to nationally significant incidents of pollution and provide advice and technical assistance to the responding agencies before and during a response action.

Non-Time-Critical Removal Action - A removal action with six months or more available for planning (compares to Time-Critical Removal Action).

Notice of Intent - A notice that an environmental impact statement will be prepared and considered.

On-Scene Coordinator (as stated in the NCP) - A Federal official predesignated by EPA or the US Coast Guard to coordinate and direct Federal responses under Subpart D (Operational Response Phase for Oil Removal), or the Official designated by the lead agency to coordinate and direct removal actions under Subpart E (Hazardous Substance Response), of the NCP.

Operable Unit (as stated in the NCP) - A discrete portion of a remedial response that by itself eliminates or mitigates a release, threat of a release or pathway of exposure and that requires no additional action to accomplish its objective. The cleanup of a site can be divided into a number of "operable units", depending on the complexity of the problems associated with the site. Operable units may consist of any set of actions performed over time or any actions that are concurrent but located in different parts of a site.

Operation and Maintenance - Activities conducted at a site after a response action occurs, to

ensure that the cleanup or containment system is functioning properly.

Ordinance and Explosive Waste (OEW) - Bombs and warhead; guided and ballistic missiles; artillery, mortar, and rocket ammunition; small arms ammunition; anti-personnel and anti-tank land mines; demolition charges; pyrotechnics; grenades; torpedoes and depth charges; containerized or uncontainerized high explosives and propellants; chemical agents; and all similar or related items or components explosive in nature or otherwise designed to cause damage to personnel or material. Soils contaminated with explosives will be considered OEW if the concentration is sufficient to present an imminent safety hazard due to explosion or exposure to chemical warfare agents. Soils contaminated with explosives that do not constitute an imminent safety hazard due to explosion or exposure to chemical warfare agents will be evaluated following HTRW procedures. Surface water and groundwater contaminated with explosives will be evaluated following HTRW procedures.

Part A (as stated in RCRA) - The first part of the two-part RCRA permit application. To satisfy application requirements for Part A, an applicant must complete and submit the appropriate federal and/or state Consolidated Permit Application Forms. The Part A (and Part B) deadline for new facilities is at least 180 days before construction of a facility is scheduled to begin.

Part B (as stated in RCRA) - The second and more complicated part of the two-part RCRA permit application. Applicants must submit Part B in narrative form to the designated agency and include detailed treatment of a wide range of activities and procedures needed for their facilities to demonstrate proper protection of human health and the environment. To satisfy requirements for Part B, there may be a state form, but there is no federal form to guide you as in Part A. For existing facilities, HSWA defines the deadlines for submitting Part B which will be called at the discretion of regulatory authorities.

Parts Per Billion/Parts Per Million - Units commonly used to express low concentrations of contaminants. For example, 1 ounce of trichloroethylene (TCE) in 1 million ounces of water is 1 ppm; 1 ounce of TCE in 1 billion ounces of water is 1 ppb. If one drop of TCE is mixed in a competition-size swimming pool, the water will contain about 1 ppb of TCE.

Pollutant and Contaminant (as stated in the NCP) - Any element, substance, compound or mixture, including disease-causing agents, which after release into the environment and upon exposure, ingestion, inhalation or assimilation onto any organism, either directly from the environment or indirectly by ingestion through food chains, will or may reasonably be anticipated to cause death, disease, behavioral abnormalities, cancer, genetic mutation, physiological malfunctions (including malfunctions in reproduction) or physical deformations, in such organisms or their offspring. The term does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance under Section 101(14) (a) through (f) of CERCLA, nor does it include natural gas, liquefied natural gas or synthetic gas of pipeline quality (or mixtures of natural gas and such synthetic gas).

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For purposes of Subpart E (Hazardous Substance Response) of the NCP, the term pollutant or contaminant means any pollutant or contaminant that may present an imminent and substantial danger to public health or welfare.

Post-Closure Plan (as stated in RCRA) - Like a closure plan, except that this plan identifies the activities (monitoring, maintenance, etc.) to be carried on after closure of a hazardous waste management facility.

Potentially Responsible Party (PRP) - Current and former owners or operators and persons who may be accountable for having generated hazardous substances or were involved in transport, treatment, or disposal of hazardous substances at a site under litigation.

Predesign - Activities involved in defining the problems on a site and in determining the most feasible solution(s) which ultimately lead to the preparation of a design (i.e., plans and specifications) for remediation of the problem.

Preliminary Assessment (PA) - An initial analysis of existing information to determine if a release may require additional investigation or action.

Program Management - A systematic way of making certain a program is conducted efficiently. Program management includes Providing adequate resources and guidance, conducting audits, and continually reviewing the program to ensure the success of the program.

Project - For the purpose of project management, a "project" is defined as all activities at an HTRW site necessary to clean up the site in accordance with all applicable environmental laws, regulations, and policies.

Project Management - A systematic way of integrating all aspects of a project including technical, contractual, real estate, regulatory, and policy considerations to make certain a quality project is completed and delivered to the customer within budget and on schedule.

Quality Assurance/Quality Control (QA/QC) - A system of procedures, checks, audits, and corrective actions used to ensure that field work and laboratory analysis during the investigation and cleanup of Superfund sites meet established standards.

Radioactive Material - Means "any material or combination of materials that spontaneously emits ionizing radiation". [H&S Code, Chapter 7, Section 256000.5(f)].

Radioactive Waste - Equipment or materials, which are radioactive or have radioactive contamination and which are required, pursuant to any governing laws, regulations, or licenses, to be disposed of as radioactive waste. For handling and disposal purposes radioactive waste is

categorized as high level, transuranic, or low level. Low level waste that also contains chemically hazardous components is termed mixed waste. The category most likely to be encountered on USACE projects is low level radioactive waste including mixed waste. Low level waste is divided into classes based on the degree of rigor required of the disposal method. Refer 10 CFR, Part 61. Also, radioactive waste means "any radioactive material that is discarded as nonusable". [H&S Code, Chapter 7, Section 256000.5(g)].

RCRA Facility Assessment - Phase I of the RCRA Corrective Action process. An evaluation of a RCRA-regulated site performed by EPA or a State agency to establish the likelihood of a threat at the site and the need for subsequent corrective action.

RCRA Facility Investigation - Phase II of the RCRA Corrective Action process. A technical phase that follows a RCRA facility assessment, executed to thoroughly characterize the nature and extent of releases at a site.

Record of Decision - A public document that explains which cleanup alternative(s) will be used at National Priorities List sites where the Trust Fund pays for the cleanup. The Record of Decision is based on information and technical analysis generated during the remedial investigation/feasibility study and consideration of public comments and community concerns.

Regional Response Team - Representatives of Federal, State, and local agencies who may assist in coordination of activities at the request of the On-Scene Coordinator or Remedial Project Manager before and during response actions.

Release (as stated in CERCLA) - Any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing, into the environment (including the abandonment or discarding of barrels, containers and other closed receptacle containing any hazardous substance or pollutant or contaminant), but excludes (A) any release which results in exposure to persons solely within a workplace, with respect to a claim which such persons may assert against the employer of such persons, (B) emissions from the engine exhaust of a motor vehicle, rolling stock, aircraft, vessel, or pipeline pumping station engine, (C), release of source, by-product, or special nuclear material from a nuclear incident, as those terms are defined in the Atomic Energy Act of 1954, if such release is subject to requirements with respect to financial protection established by the Nuclear Regulatory Commission under Section 170 or such Act or, for the purposes of Section 104 of this title or any other response action, any release of source by-product, or special nuclear material from any processing site designated under Section 102(1) or 302(a) of the Uranium Mill Tailings Radiation Control Act of 1978, and (D) the normal application of fertilizer.

Remedial Action (RA) - The actual construction or implementation phase that follows the remedial design of the selected cleanup alternative at a site on the National Priorities List.

Remedial Design (RD) - An engineering phase that follows the Record of Decision when technical drawings and specifications are developed for the subsequent remedial action at a site on the National Priorities List.

Remedial Investigation (RI) - The process undertaken to determine the nature and extent of the problem presented by a release which emphasizes data collection and site characterization. The remedial investigation is generally performed concurrently and in an interdependent fashion with the feasibility study.

Remedial Investigation/Feasibility Study - Two distinct but related studies. They are usually performed at the same time, and together referred to as the "RI/FS". They are intended to:

- Gather the data necessary to determine the type and extent of contamination at a Superfund site;
- Establish criteria for cleaning up the site;
- Identify and screen cleanup alternatives for remedial action; and
- Analyze in detail the technology and costs of the alternatives

Remedial Project Manager (RPM) - An individual, designated within an EPA Region, who directs Federal fund-financed remedial actions and coordinates all other Federal actions at the scene. The RPM is the counterpart of the On-Scene Coordinator for removal actions.

Remedial Response - A long-term action that stops or substantially reduces a release or threatened release, of a hazardous substance, that is serious, but does not pose an immediate threat to public health and/or environment.

Removal Action (RA) (as stated in CERCLA) - The cleanup or removal of released hazardous substances from the environment, such actions as may be necessary taken in the event of the threat of release of hazardous substances into the environment, such actions may be necessary to monitor, assess and evaluate the release or threat of release of hazardous substances, the disposal of removal material, or the taking of such other actions as may be necessary to prevent, minimize or mitigate damage to the public health or welfare or to the environment, which may otherwise result from a release or threat of release. The term includes, in addition, without being limited to, security fencing or other measures to limit access, provision of alternative water supplies, temporary evacuation and housing of threatened individuals not otherwise provided for, action taken under Section 104(b) of this Act and any emergency assistance which may be provided under the Disaster Relief Act of 1974.

Reportable Quantity (RQ) - The quantity of hazardous substance considered reportable under CERCLA in the event of a release. Reportable quantities are identified in 40 CFR 302.5 and may be 1, 10, 100, 1,000, or 5,000 pounds. Quantities are to be measured over a 24-hour period.

Resource Conservation and Recovery Act (RCRA) - A Federal law passed in 1976 and modified in 1984 by the Hazardous and Solid Waste Amendments (HSWA). RCRA has established a regulatory system to track hazardous waste from the time of generation to disposal, (cradle-to-grave). The law requires safe and secure procedures to be used in treating, transporting, storing, and disposing of hazardous waste. RCRA is designed to prevent new, uncontrolled hazardous waste sites.

Response Action - Any remedial action, removal action, or cleanup at a site under CERCLA 101 (25). Includes, but is not limited to:

- Enforcement-related activities.
- Removing hazardous materials from a site to an EPA approved, licensed hazardous waste facility for treatment, containment, or destruction.
- Containing the waste safely on-site to eliminate further problems.
- Destroying or treating the waste on-site using incineration or other technologies.
- Identifying and removing the source of ground-water contamination and halting further movement of the contaminants.

Responsiveness Summary - A summary of oral and/or written public comments received by EPA during a comment period on key EPA documents, and EPA's responses to those comments. The responsiveness summary is especially valuable during the Record of Decision phase at a site on the National Priorities List when it highlights community concerns for EPA decision-makers.

Risk Assessment - A qualitative and quantitative evaluation performed to determine the risk posed to human health and/or the environment by the presence or potential presence and/or use of specific pollutants. Baseline risk assessments are performed as part of the RI.

Safety and Health Program/Plan (SHP) - A written safety and health program/plan for employees involved in hazardous waste operations meeting the criteria contained in 29 CFR 1910.120 (b), and EM 385-1-1, Section 1, paragraph 01.A. Safety and health programs developed and implemented to meet other Federal, State, or local government regulations are considered acceptable if they cover or are modified to fully cover the applicable topics in these criteria.

Safe Drinking Water Act (SDWA) - The Safe Drinking Water Act was enacted in 1974 to ensure

the quality of the nations drinking water. Water quality standards have been established to achieve this goal. Primary drinking water standards, are either maximum contaminant levels (MCLs) that must be attained, or specific treatment technologies that must be applied. Secondary drinking water standards are aesthetic standards dealing with properties such as color and odor that are a measure of water quality, but are not enforceable standards. Whereas water exceeding primary drinking water standards can not be distributed for consumption, water exceeding secondary drinking water standards can be distributed. In addition to establishing primary and secondary standards, EPA also promulgates maximum contaminant level goals (MCLGs). These are risk-based goals toward which water quality is aimed, but attainment is not mandatory.

Sampling and Analysis Plan (SAP) - A contractor is required to prepare and submit a SAP for acceptance prior to commencement of sampling activities. A SAP is comprised of a Field Sampling Plan (FSP) and a Quality Assurance Project Plan (QAPP). The FSP defines requirements for sampling, field documentation, onsite chemical analysis, sample packaging, etc. The QAPP defines the laboratory analytical and chemical data reporting requirements.

Second Line Review - At a minimum, second line review takes the form of a QA review. A QA review involves a limited review of the deliverable and/or review of the first line review comments.

Site Safety and Health Plan (SSHP) - A written plan, separate and distinct from the SHP (although considered a site-specific component of the SHP), prepared by USACE contractors (either AE or Construction Services Contractor) or developed by qualified USACE occupational health/industrial hygiene/safety personnel for in-house HTRW field activities which describes the methods by which the contractor or USACE personnel will meet the safety and health requirements of OSHA standards, 29 CFR 1910 and 1926 (specifically 1910.120, EM 385-1-1, and the technical contract specification provision - SAFETY, HEALTH, AND EMERGENCY RESPONSE, if applicable). The SSHP will be considered to satisfy the provision for an Accident Prevention Plan required by FAR clause 52.236-13 if it incorporates the requirements of EM 385-1-1, specifically section 01.A to include activity hazard analyses. (In addition to construction contracts, service, supply, or research and development contracting actions for HTRW site investigation, design, or remediation activities shall specify the use of FAR 52.236-13).

Site Inspection (SI) - An on-site inspection to determine whether there is a release or potential release and the nature of the associated threats. The purpose is to augment the data collected in the preliminary assessment and to generate, if necessary, sampling and other field data to determine if further action or investigation is appropriate. The information is used to score the site with the Hazard Ranking System.

Small Quantity Generator (as stated in RCRA) - A regulated facility that generates more than 100

kilograms and less than 1,000 kilograms (about 1 ton) of hazardous waste in a calendar month. However, even if a small quantity generator avoids the permitting process itself, the facility may still be subject to certain RCRA conditions (e.g., if the quantity of acutely hazardous wastes generated in a calendar month exceeds quantities specified under RCRA).

Solid Waste (as stated in RCRA) - Any garbage, refuse, sludge, or other waste materials not excluded by definition. Exclusions (materials not defined as "solid wastes") include domestic sewage and any mixture of other wastes that pass through a sewer system to a publicly owned treatment works; industrial wastewater discharges that are point source discharges subject to regulation under the Clean Water Act, as amended; irrigation return flows; material defined by the Atomic Energy Act of 1954, as amended; and in-situ mining material. Note: EPA defines hazardous waste as a subset of solid waste.

Solid Waste Management Unit (SWMU) - Any discernable waste management unit from which hazardous constituents may migrate, irrespective of whether the unit was intended for the management of solid or hazardous wastes. The types of units considered SWMUs are landfills, surface impoundments, waste piles, land treatment units, incinerators, injection wells, tanks, container storage areas, wastewater treatment systems, and transfer stations. In addition, areas associated with production processes at facilities that have become contaminated as a result of routine, systematic, and deliberate releases of wastes (which may include abandoned or discarded product), or hazardous constituents from wastes, are considered SWMUs.

Source Material - Means "(1) uranium or thorium, or any other material which the department declares by rule to be source material after the United States Nuclear Regulatory Commission, or any successor thereto, has determined the material to be such, or, (2) areas containing one or more of the foregoing materials, in such concentration as the department declares by rule to be source material after the United States Nuclear Regulatory Commission, or any successor thereto, has determined the material in such concentration to be source material. [H&S Code, Chapter 7.6, Art. 2, Section 25805 (e)].

Special Nuclear Material - Means "(1) Plutonium, uranium 233, uranium enriched in the isotope 233 or in the isotope 235; and any other material which the department declares by rules to be special nuclear material after the United States Nuclear Regulatory Commission or any successor thereto, has determined the material to be such, but does not include source material; or, (2) any material artificially enriched by any of the foregoing; but does not include source material". [H&S Code, Chapter 7.6, Art. 2, Section 25805 (f)].

Subtitle C (of RCRA) - A principal regulatory provision of RCRA which establishes a comprehensive "cradle to grave" program to regulate hazardous wastes from generation through disposal.

Surface Water - Bodies of water that are above ground, such as rivers, lakes, and streams.

Superfund - The common name used for the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), also referred to as the Trust Fund, and any amendments thereafter.

Superfund Amendments and Reauthorization Act (SARA) - Modifications to CERCLA enacted on October 17, 1986.

Superfund Project - For the purposes of "project management", a Superfund project is a Federal lead project executed by USACE. A project consists of all phases (RD and RA) and all operable units at a site.

Technical Review - The review of those aspects of a project relating to the application of scientific, engineering, regulatory, and legal principles to solve a problem or achieve a goal.

Time-Critical Removal Action - A removal action with less than six months available for planning (compare to Non-Time-Critical Removal Action).

Toxic Substances Control Act - Whereas RCRA controls the disposal of hazardous wastes after they have been generated, TSCA was enacted in 1976 to evaluate toxic substances before they are used and to control the manner in which they are used.

Transuranic Waste - Means "any waste containing more than 100 nanocuries of alpha-emitting transuranic elements per gram of waste material". [H&S Code, Chapter 7/6, Art. 2, Section 25805 (1)]

Treatability Study - A bench or pilot scale study conducted during the pre-design or design phase to demonstrate the feasibility of and to refine operational parameters for a candidate remedial technology.

Treatment, Storage, and Disposal (TSD) Facility - Any building, structure, or installation where a hazardous waste has been treated, stored, or disposed. TSD facilities are regulated by EPA and States under the Resource Conservation and Recovery Act.

Trust Fund - A fund set up under CERCLA to help pay for cleanup of hazardous waste sites and to take legal action to force those responsible for the sites to clean them up.

Underground Storage Tank (UST) - One or more tanks, including underground connective piping, that stores "regulated substances" and that is more than 10%, by volume, below the surface of the ground. Regulated substances include hazardous chemical products regulated under CERCLA and petroleum products. The UST program, under Subtitle I of RCRA, for the

first time applies the RCRA program for storage of products and hazardous substances. Underground tanks containing hazardous waste are regulated under Subtitle C of RCRA.

Volatile Organic Compound - An organic (carbon-containing) compound that evaporates (volatilizes) readily at room temperature.

Water Purveyor - A public utility, mutual water company, county water district, or municipality that delivers drinking water to customers, (i.e., Publicly Owned Treatment Works (POTW)).